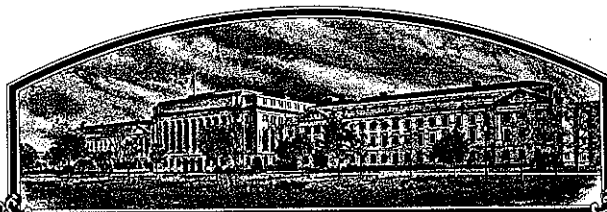


No.

8000017



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Hurst Gunson Cooper Taber Limited

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS DETERMINED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SPRING BARLEY

'Triumph'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 25th day of July in the year of our Lord one thousand nine hundred and eighty-four.

Attest:

Kenneth H. ...
Commissioner
Plant Variety Protection Office
Livestock, Meat, Grain & Seed Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY NONE		1b. VARIETY NAME TRIUMPH		FOR OFFICIAL USE ONLY	
				PV NUMBER 8000017	
2. KIND NAME SPRING BARLEY		3. GENUS AND SPECIES NAME Hordeum Vulgare		FILING DATE 12-5-79	TIME 2:00 P.M.
4. FAMILY NAME (BOTANICAL) GRAMINAE		5. DATE OF DETERMINATION 1976		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 12-5-79 6/27/84
6. NAME OF APPLICANT(S) HURST GUNSON COOPER TABER LIMITED		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) HURST CROP RESEARCH & DEVELOPMENT UNIT, GT. DOMSEY FARM, FEERING, COLCHESTER, ESSEX, CO5 9ES, UNITED KINGDOM		8. TELEPHONE AREA CODE AND NUMBER 0376 - 71123	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) LIMITED COMPANY		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION NOT APPLICABLE		11. DATE OF INCORPORATION NOT APPLICABLE	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: MR. STAN ROLLIN, SEED CONSULTANT, 6802 OREM DRIVE, LAUREL, MARYLAND 20810, U.S.A.					

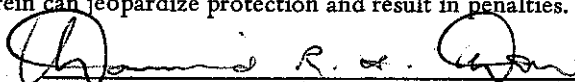
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.)		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?		
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.) UNITED KINGDOM - 13.12.76			
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.) UNITED KINGDOM - 20.12.78			

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO
17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.
- The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.
- Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

November 13 1979
(DATE)


(SIGNATURE OF APPLICANT)

and 09:12
6/9/76 5 030

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

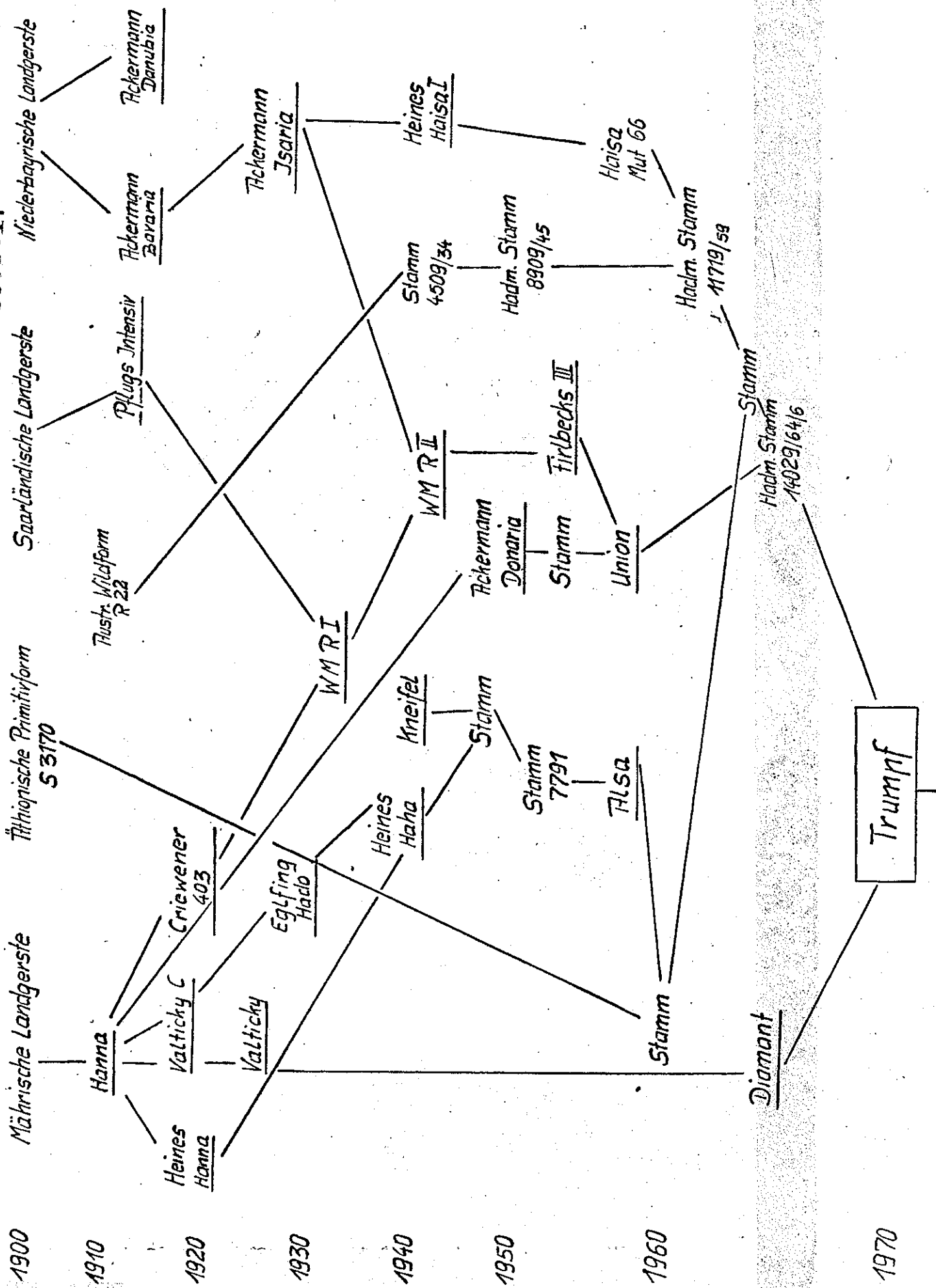
13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

8000017



ADDENDUM TO EXHIBIT A EXCERPTED FROM
APPLICANT'S LETTER OF NOVEMBER 10, 1981 AT
REQUEST OF THE APPLICANT IN HIS LETTER
OF DECEMBER 21, 1981.

The original 'Trumpf' was tested by the National Institute of Botany in 1974 on behalf of the Plant Variety Rights Office. It found about 30 percent aberrants in the ear/row tests for distinctness, uniformity and stability. In its view this was too high a variability to be acceptable as a variety and it was rejected.

Following a reselection process to remove the 30 percent aberrants, the variety was resubmitted to the Plant Variety Rights Office to be recognized as 'Trumpf'; however, that Office ruled that due to the extensive change in the original 'Trumpf'; the reselection would have to be called by another variety name. It was then entered as 'Triumph'

AMENDMENT - EXHIBIT A

APPLICATION NO. 8000017
'TRIUMPH' BARLEY

TYPE OR FREQUENCY OF VARIANTS

Attached is a copy of a report No. AFP 2/278 issued by the United Kingdom which shows that out of six 100-ear rows grown in Belfast, Cambridge, and Edinburgh in 1977 and 1978, only one in ~~Edinburgh~~ ^{CAMBRIDGE} showed that one was "Earlier at awn emergence and slightly taller" and one was "Mixed for ear types". Since this variance was not sufficient to reject the variety in the United Kingdom (it now constitutes 30 percent of the acreage there), we believe it is sufficiently uniform to be recognized as uniform under the U. S. Plant Variety Protection Act.

East
4/27/82
per telephone
call

EXHIBIT A-

8000017

AFP 2/278

Ministry of Agriculture, Fisheries and Food and Plant Variety Rights Office
 Department of Agriculture and Fisheries for Scotland
 Department of Agriculture for Northern Ireland

FINAL

REPORT

REPORT ON TESTS FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Crop Spring Barley
 Species Hordeum distichum L.

APPLICATION DATA

Application for: (a) addition to National List ☒ (b) grant of PBR ☒

File Reference AFP 2/278

Approved name -

Breeder's designation TRIUMPH

Parentage or breeding history of variety as stated by applicant

Diamant x St. 1402964/6

Name and address of breeder Institut für Getreideforschung,
Hadmersleben, East Germany

Name and address of applicant (a) For Plant Breeders Rights Vebsaat-und Pflanzgut Ex-und Import,
Moosdorfstrasse 7-9, 1193 Berlin, East Germany

(b) For National Listing (if different)

Name and address of U.K. agent or address for service Hurst Gunson Cooper Taber Ltd.,
Avenue Road, Witham, Essex

TEST AUTHORITIES AND TEST DATA

A. England and Wales
 National Institute of
 Agricultural Botany,
 Huntingdon Road,
 Cambridge.

B. Scotland
 Dept. of Agric. and Fisheries
 for Scotland
 Agric. Scientific Services,
 East Craigs, Edinburgh.

C. Northern Ireland
 Department of Agriculture
 for Northern Ireland
 Field Botany Division,
 Crossnacreevy, Belfast.

Years of tests

1	2	3	4	5
1977	1978			

EXHIBIT A

8000017

UNIFORMITY

REPORT OF VARIANTS

AFP 2/278

FINAL REPORT

A. EAR ROWS

Centre	No. of Variant rows	Description of Variants	Variant confirmed or not
<u>Harvest Year 1977 - Ear rows from ears ex applicant</u>			
BELFAST	NIL		
CAMBRIDGE	NIL		
EDINBURGH	NIL		
<u>Harvest Year 1978 - Ear rows from ears ex 1977 plots</u>			
BELFAST	NIL		
CAMBRIDGE	1	Earlier at awn emergence, slightly taller	
EDINBURGH	1	Mixed for ear type	

Remarks

EXHIBIT A

8000017

AFP 2/278

FINAL

REPORT

UNIFORMITY (contd.)

B. PLOTS

1977 and 1978

No variants recorded in routine sample examinations

C. NATIONAL LIST PERFORMANCE TRIAL SEED STOCK

Satisfactory

STABILITY

Satisfactory

DISTINCTNESS

Distinct

Remarks

Signed for N.I.A.B. A J Eade

for D.A.F.S. J L Kepple

DAN J Tinman

Date

15 NOV 1978

Date

20 NOV 1978

Date

23 NOV 1978

NEW MAY 18, 1982

EXHIBIT B - NOVELTY

BARLEY APPLICATION NO. 8000017 , 'Triumph'

"Triumph" is similar to "Julia" except that "Triumph" is two days later than "Julia" in maturity and "Triumph" is 9.2 cm. shorter than "Julia" in straw length, as shown by the attached Cereals Trials Advisory Committee Report No. 415. The latter claim is based on the fact that "Triumph" was shorter than "Julia" in 35 out of 37 trials with an average difference of 9.2 cm. This difference is significant at the 0.001 level of probability.



NATIONAL INSTITUTE OF AGRICULTURAL BOTANY

Cereal Trials Advisory Comm

Paper No. 415

COMPARISON WITH CONTROLS	MATURITY		STRAW LENGTH		LODGING		VARIETY COMMENTS
	earlier :	later	longer :	shorter	stronger :	weaker	
Julia : Sundance	9 : 20		44½ : 1½***		42 : 12***		
Julia : Sundance	12½ : 16½		45½ : ½***		31½ : 14½*		Added
Julia : Sundance	5 : 6		23 : 14		27½ : 12½*		Added
Julia : Sundance	4 : 8		24 : 13		25 : 15		Added
Julia : Sundance	8 : 4		14 : 23		14 : 26		Added
Julia : Sundance	7½ : 4½		17 : 20		10 : 30**		Not yet
Julia : Sundance	9 : 3		4 : 33***		34½ : 5½***		Not yet
Julia : Sundance	9½ : 2½		5 : 32***		32 : 8***		Not yet
Julia : Sundance	7 : 5		35 : 2***		23 : 17		Added
Julia : Sundance	7 : 5		35 : 2***		19½ : 20½		Added
Julia : Sundance	6 : 6		22 : 15		27½ : 12½*		Added
Julia : Sundance	5½ : 6½		25 : 12		25 : 15		Added
Julia : Sundance	9 : 3		20 : 17		25½ : 14½		Added
Julia : Sundance	8½ : 3½		21½ : 15½		20½ : 19½		Added
Julia : Sundance	1½ : 10½*		2 : 35***		32 : 8***		Not yet
Julia : Sundance	½ : 11½**		2½ : 24½***		31½ : 8½***		Not yet
93/73 : Julia	9½ : 2½		9 : 28		32 : 8***		
93/73 : Sundance	9 : 3		9 : 28		26 : 14		

*, **, *** - Indicate varieties significantly different at the P=0.05, P=0.01 and p=0.001 levels respectively.

SPRING BARLEY

Paper No. 415

Summary of Field and Quality Characters

All figures based on a 0-9 rating unless otherwise stated 0 = VERY LATE; 9 = VERY EARLY

ex as per
letter dated
12/21/81

	Maturity	Straw Length	Resistance to Lodging	Malting Quality	Tolerance of Barban	Reaction to DDF
<u>CONTROL VARIETIES</u>						
Julia	7	6½	6½	-	High	Susceptible
Sundance	6½	6½	7	5	High	Susceptible
<u>CANDIDATE VARIETIES</u>						
Dram	6½	4½	8	6	High	Susceptible
Atem	6½	6	7½	6	Prov. high	Resistant
Aurea	7	6½	6	9	Low	Susceptible
Claret	7	7½	8½	5	Prov. high	Susceptible
Egmont	7	5	7	1	Low	Susceptible
Koru	6½	6	7½	1	Prov. high	Susceptible
Tintern	6½	6½	7	6	Prov. high	Susceptible
Triumph	5	8½	9	9	Prov. high	Susceptible
RPB 393/73	7	7½	8	4	Prov. high	Susceptible

OBJECTIVE DESCRIPTION OF VARIETY
BARLEY (HORDEUM VULGARE)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

HURST GUNSON COOPER TABER LIMITED

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

HURST CROP RESEARCH & DEVELOPMENT UNIT, GT. DOMSEY FARM,
FEERING, COLCHESTER, ESSEX. CO5 9ES, UNITED KINGDOM

FOR OFFICIAL USE ONLY

PVPO NUMBER

8000017

VARIETY NAME OR TEMPORARY
DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (i.e. or) when number is either 99 or less or 9 or less.

1. GROWTH HABIT:

 1 = SPRING 2 = FACULTATIVE WINTER 3 = WINTER Early Growth: 1 = PROSTRATE 2 = SEMIPROSTRATE
3 = ERECT

2. MATURITY (50% Flowering):

 1 = EARLY (California Mariout) 2 = MIDSEASON (Betzes) 3 = LATE (Frontier) No. of days Earlier than } 1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON No. of days Later than } 5 = PIROLINE 6 = PRIMUS 7 = UNITAN

3. PLANT HEIGHT (From soil level to top of head):

 1 = SEMIDWARF 2 = SHORT (California Mariout) 3 = MEDIUM TALL (Betzes) 4 = TALL (Conquest) Cm. Shorter than } 1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON Cm. Taller than } 5 = PIROLINE 6 = PRIMUS 7 = UNITAN

4. STEM:

 Exertion (Flag to spike at maturity): 1 = 0 - 3 cm. 2 = 3 - 10 cm. Anthocyanin: 1 = ABSENT 2 = PRESENT
3 = 10 - 15 cm. NO. OF NODES (Originating from node above ground) Collar Shape: 1 = CLOSED 2 = V-SHAPED 3 = OPEN Shape of Neck: 1 = STRAIGHT 2 = SNAKY
4 = MODIFIED CLOSED OR OPEN 3 = OTHER (Specify)

5. LEAF:

 Basal leaf sheath (seedling): 1 = GLABROUS 2 = PUBESCENT Position of flag leaf (at boot stage): 1 = DROOPING
2 = UPRIGHT Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY
3 = WAXY MM. WIDTH (First leaf below flag leaf) CM. LENGTH (First leaf below flag leaf) Anthocyanin in leaf sheath: 1 = ABSENT 2 = PRESENT

6. HEAD:

 Type: 1 = TWO-ROWED 2 = SIX-ROWED Density: 1 = LAX 2 = ERECT (Not dense)
3 = ERECT (Dense) Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY
4 = OTHER (Specify) 3 = WAXY Lateral Kernels Overlap: 1 = NONE 2 = AT TIP Rachis (Hair on edge): 1 = LACKING 2 = FEW 3 = COVERED
3 = 1/4 - 1/2 OF HEAD

7. GLUME:

 Length: 1 = 1/3 OF LEMMA 2 = 1/2 OF LEMMA Hairs: 1 = NONE 2 = SHORT 3 = LONG
3 = MORE THAN 1/2 OF LEMMA Hair covering: 1 = NONE 2 = RESTRICTED TO MIDDLE 3 = CONFINED TO BAND 4 = COMPLETELY COVERED Awns: 1 = LESS THAN EQUAL TO LENGTH OF GLUMES 2 = EQUAL TO LENGTH OF GLUMES
3 = MORE THAN EQUAL TO LENGTH OF GLUMES Awn Surface: 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

8. LEMMA:

☐ 5 Awn: 1 = AWNLESS 2 = AWNLETS ON CENTRAL ROWS, AWNLESS ON LATERAL ROWS
 3 = SHORT ON CENTRAL ROWS, AWNLETS ON LATERAL ROWS 4 = SHORT (less than equal to length of spike)
 5 = LONG (longer than spike) 6 = HOODED

☐ 3 Awn Surface: 0 = AWNLESS 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

☐ 2 Teeth: 1 = ABSENT 2 = FEW 3 = NUMEROUS ☐ 1 Hair: 1 = ABSENT 2 = PRESENT

☐ 1 Shape of base: 1 = DEPRESSION 2 = SLIGHT CREASE 3 = TRANSVERSE CREASE ☐ 2 Rachilla Hairs: 1 = SHORT 2 = LONG

9. STIGMA:

☐ 2 Hairs: 1 = FEW 2 = MANY

10. SEED:

☐ 2 Type: 1 = NAKED 2 = COVERED ☐ 1 Hairs on Ventral Furrow: 1 = ABSENT 2 = PRESENT

☐ 2 Length: 1 = SHORT (8.0 mm.) 2 = SHORT TO MIDLONG (7.5 - 9.0 mm.) 3 = MIDLONG (8.5 - 9.5 mm.)
 4 = MIDLONG TO LONG (9.0 - 10.5 mm.) 5 = LONG (10.0 mm.)

☐ 3 Wrinkling of hull: 1 = NAKED 2 = SLIGHTLY WRINKLED 3 = SEMIWRINKLED 4 = WRINKLED

☐ 1 Aleurone Color: 1 = COLORLESS (White or Yellow) 2 = BLUE

☐ 0 ☐ 2 PERCENT ABORTIVE ☐ 4 ☐ 7 GMS. PER 1000 SEEDS

11. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

<input type="checkbox"/> 0 SEPTORIA	<input type="checkbox"/> 0 NET BLOTCH	<input type="checkbox"/> 0 SPOT BLOTCH	<input type="checkbox"/> 2 POWDERY MILDEW
<input type="checkbox"/> 1 LOOSE SMUT	<input type="checkbox"/> 0 BACTERIAL BLIGHT	<input type="checkbox"/> 0 COVERED SMUT	<input type="checkbox"/> 0 FALSE LOOSE SMUT
<input type="checkbox"/> 0 STEM RUST	<input type="checkbox"/> 2 LEAF RUST <i>Puccinia hordei</i>	<input type="checkbox"/> 0 SCAB	<input type="checkbox"/> 0 SCALD ?
<input type="checkbox"/> 0 AY	<input type="checkbox"/> 0 BSMV	<input type="checkbox"/> 0 BYDV	<input type="checkbox"/> 2 <i>Rhynchosporium secalis</i> <i>Puccinia striiformis</i>

12. INSECT: (0 = Not tested, 1 = Susceptible, 2 = Resistant)

<input type="checkbox"/> 0 GREEN BUG	<input type="checkbox"/> 0 ENGLISH GRAIN APHID	<input type="checkbox"/> 0 CHINCH BUG	<input type="checkbox"/> 0 ARMYWORM
<input type="checkbox"/> 0 GRASS HOPPERS	<input type="checkbox"/> 0 CERIAL LEAF BETTLE	<input type="checkbox"/> 0 OTHER (Specify) _____	
HESSIAN FLY RACES		<input type="checkbox"/> 0 GP	<input type="checkbox"/> 0 A
		<input type="checkbox"/> 0 B	<input type="checkbox"/> 0 C
		<input type="checkbox"/> 0 D	<input type="checkbox"/> 0 E
		<input type="checkbox"/> 0 F	<input type="checkbox"/> 0 G

13. CHEMICAL (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 1 DDT ☐ 0 OTHER (Specify) _____

14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering		Seed size	
Leaf size		Coleoptile elongation	
Leaf color		Seedling pigmentation	
Leaf carriage			

REFERENCES: The following publications may be used as a reference aid for the standardization of character descriptions and terms used in this form:

1. Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.
2. Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61 - 84.
3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

DEC 5 1979

2:00 pm

VARIETY DESCRIPTION - PROVISIONAL

FINAL

REPORT

Crop Spring BarleySpecies Hordeum distichum L.Approved name or
breeder's designation TRIUMPH

Origin : Diamant x St. 1402964/6

Breeder : Institut für Getreideforschung, Hadmersleben,
East Germany

Breeder's Designation : TRIUMPH

Ear

Type : 2-row

Density : Medium-lax

Awns : Rough, longer than ear

Rachis segments - first : Short-medium to medium length, medium-wide

- in mid- : Straight or weakly humped in profile

third

Grain

Type : A to AB weak "

Pigment : Absent to weak

Base of lemma : Bevelled

Rachilla length : Medium

Ventral furrow : Glabrum

Lodicules : 'Collar' type, short

Vegetative Characters

Habit of growth : Semi-erect to semi-prostrate

Lower leaf sheaths : Glabrous, weakly to moderately pigmented

Flagleaf auricles : Moderately to strongly pigmented

Awn tips : Moderately to strongly pigmented

Glaucosity at earing : Weak to medium

Reaction to DDT : Susceptible



CERTIFICATE OF INCORPORATION
ON CHANGE OF NAME

No. 24499

I hereby certify that

HURST GUNSON COOPER TABER LIMITED

having by special resolution changed its name, is now
incorporated under the name of
BOOKER SEEDS LIMITED

Given under my hand at the Companies Registration Office,
Cardiff the 1ST JANUARY 1987

MRS. E. J. JONES

Certified to be a true copy

an authorised officer

Company Secretary